

CLAIMS

What is claimed is:

1. A method of remote direction of streaming digital content from a multiplicity of sources of digital information to a multiplicity of client devices the method implemented upon a network of digital computers, at least one of the digital computers comprising a content server upon which the steps of the method are implemented in computer memory and at least one computer processor, the method comprising the steps of:
- receiving digital content from the sources, the digital content having a multiplicity of digital formats;
- receiving, from a remote director, and storing in computer memory, remote director instructions, the remote director instructions including instructions for selections of digital content for inclusion in an output stream;
- carrying out the remote director instructions, wherein carrying out the remote director instructions further comprises:
- selecting, in dependence upon the remote director's instructions, digital content for inclusion in an output stream;
- transcoding, in dependence upon the remote director's instructions, the digital content from sources into digital content having streaming format;

including in an output stream, in dependence upon the remote director's instructions, digital content having streaming format;

communicating, in dependence upon the remote director's instructions, to at least one of the client devices the output stream.

2. The method of claim 1, wherein the client devices comprise client device attributes, said transcoding further comprising transcoding in dependence upon the client device attributes.

3. The method of claim 2 wherein client device attributes include device type, screen size, frame rate, and audio status.

4. The method of claim 1 wherein the remote director comprises a personal computer coupled through a network to the content server, the method further comprising:

sending from the remote director to the content server remote director instructions, further comprising invoking through URLs displayed on a terminal of the remote director member methods in servlets installed on the content server.

5. The method of claim 4 wherein the invoking through URLs further comprises invoking through each URL a single member method in a servlet.

6. The method of claim 5 wherein the single member method is programmed to carry out a single remote director instruction.

7. The method of claim 5 wherein the single member method is implemented as a Java thread-level URL dispatch routine.

8. The method of claim 4 wherein the remote director instruction comprises an instruction to select for transcoding and streaming digital content from a specific source.

9. The method of claim 1 further comprising the steps of:

registering a user for a service, the service identified by a service identification code, the service comprising at least one output stream;

logging in the user for the service, logging in the user further comprising assigning values to user login attributes, the user login attributes comprising user identification, device type, network address, and a tier;

assigning a tier value in dependence upon the device type and the service identification code;

wherein the selections are dependent upon the tier;

wherein transcoding further comprises transcoding in dependence upon the tier; and

wherein communicating to at least one of the client devices the output stream further comprises communicating the output stream to the network address.

10. The method of claim 6 wherein:

registering a user further comprises creating a service registration record
comprising service registration attributes comprising user id, service id and service
5 subscription level; and

assigning a tier value further comprises assigning a tier value in dependence upon
the service subscription level;

10 11. The method of claim 1 further comprising the steps of:

registering a user for an event, the event identified by an event identification code,
the event comprising at least one output stream, at least one source, a start date and
a start time;

15 logging in the user for the event, logging in the user further comprising assigning
values to user login attributes, the user login attributes comprising user
identification, device type, network address, and a tier;

20 assigning a tier value in dependence upon the device type and the event
identification code;

wherein the selections are dependent upon the tier;

25 wherein transcoding further comprises transcoding in dependence upon the tier; and

wherein communicating to at least one of the client devices the output stream further comprises communicating the output stream to the network address.

12. The method of claim 5 wherein:

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registering a user further comprises creating an event registration record comprising event registration attributes comprising user id, event id, event subscription level, start date, and start time; and

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assigning a tier value further comprises assigning a tier value in dependence upon the event subscription level.

13. A system for remote direction of streaming digital content from a multiplicity of sources of digital information to a multiplicity of client devices the system implemented upon a network of digital computers, at least one of the digital computers comprising a content server upon which the system is implemented in computer memory and upon at least one computer processor, the system comprising:

means for receiving digital content from the sources, the digital content having a multiplicity of digital formats;

means for receiving, from a remote director, and storing in computer memory, remote director instructions, the remote director instructions including instructions for selections of digital content for inclusion in an output stream;

means for transcoding the digital content from sources into digital content having streaming format;

means for including in an output stream, in dependence upon the remote director's instructions, digital content having streaming format;

means for communicating to at least one of the client devices the output stream.

14. The system of claim 10, wherein the client devices comprise client device attributes, said means for transcoding further comprising means for transcoding in dependence upon the client device attributes.

15. The system of claim 11 wherein client device attributes include device type, screen size, frame rate, and audio availability.

16. The system of claim 13 wherein the remote director comprises a personal computer coupled through a network to the content server, the system further comprising:

means for sending from the remote director to the content server remote director instructions, further comprising means for invoking through URLs displayed on a terminal of the remote director member methods in servlets installed on the content server.

17. The system of claim 16 wherein the means for invoking through URLs further comprises means for invoking through each URL a single member method in a servlet.

18. The system of claim 17 wherein the single member method is programmed to carry out a single remote director instruction.

19. The system of claim 17 wherein the single member method is implemented as a thread-level Java URL dispatch routine.

20. The system of claim 4 wherein the remote director instruction comprises an instruction to select for transcoding and streaming digital content from a specific source.

21. The system of claim 10 further comprising:

means for registering a user for a service, the service identified by a service identification code, the service comprising at least one output stream;

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means for logging in the user for the service, said means for logging in the user further comprising means for assigning values to user login attributes, the user login attributes comprising user identification, device type, network address, and a tier;

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means for assigning a tier value in dependence upon the device type and the service identification code;

wherein the selections are dependent upon the tier;

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wherein means for transcoding further comprises means for transcoding in dependence upon the tier; and

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wherein means for communicating to at least one of the client devices the output stream further comprises means for communicating the output stream to the network address.

22. The system of claim 15 wherein:

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means for registering a user further comprises means for creating a service registration record comprising service registration attributes comprising user id, service id and service subscription level; and

means for assigning a tier value further comprises means for assigning a tier value in dependence upon the service subscription level.

5 23. The system of claim 1 further comprising:

means for registering a user for an event, the event identified by an event identification code, the event comprising at least one output stream, at least one source, a start date and a start time;

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means for logging in the user for the event, logging in the user further comprising assigning values to user login attributes, the user login attributes comprising user identification, device type, network address, and a tier;

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means for assigning a tier value in dependence upon the device type and the event identification code;

wherein the selections are dependent upon the tier;

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wherein means for transcoding further comprises means for transcoding in dependence upon the tier; and

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wherein means for communicating to at least one of the client devices the output stream further comprises means for communicating the output stream to the network address.

24. The system of claim 17 wherein:

means for registering a user further comprises means for creating an event
registration record comprising event registration attributes comprising user id, event
id, event subscription level, start date, and start time; and

means for assigning a tier value further comprises means for assigning a tier value
in dependence upon the event subscription level.

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25. A computer program product for remote direction of streaming digital content from a multiplicity of sources of digital information to a multiplicity of client devices the system implemented upon a network of digital computers, at least one of the digital computers comprising a content server upon which the system is implemented in computer memory and upon at least one computer processor, the computer program product comprising:

a recording medium;

means, recorded on the recording medium, for receiving digital content from the sources, the digital content having a multiplicity of digital formats;

means, recorded on the recording medium, for receiving, from a remote director, and storing in computer memory, remote director instructions, the remote director instructions including instructions for selections of digital content for inclusion in an output stream;

means, recorded on the recording medium, for transcoding the digital content from sources into digital content having streaming format;

means, recorded on the recording medium, for including in an output stream, in dependence upon the remote director's instructions, digital content having streaming format;

means, recorded on the recording medium, for communicating to at least one of the client devices the output stream.

26. The computer program product of claim 25, wherein the client devices comprise client device attributes, said means for transcoding further comprising means for transcoding in dependence upon the client device attributes.
27. The computer program product of claim 26 wherein client device attributes include device type, screen size, frame rate, and audio availability.
28. The computer program product of claim 25 wherein the remote director comprises a personal computer coupled through a network to the content server, the system further comprising:
- means, recorded on the recording medium, for sending from the remote director to the content server remote director instructions, further comprising means, recorded on the recording medium, for invoking through URLs displayed on a terminal of the remote director member methods in servlets installed on the content server.
29. The computer program product of claim 28 wherein the means for invoking through URLs further comprises means for invoking through each URL a single member method in a servlet.
30. The computer program product of claim 29 wherein the single member method is programmed to carry out a single remote director instruction.
31. The computer program product of claim 29 wherein the single member method is implemented as a thread-level Java URL dispatch routine.

32. The computer program product of claim 25 wherein the remote director instruction comprises an instruction to select for transcoding and streaming digital content from a specific source.

5 33. The computer program product of claim 10 further comprising:

means, recorded on the recording medium, for registering a user for a service, the service identified by a service identification code, the service comprising at least one output stream;

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means, recorded on the recording medium, for logging in the user for the service, said means for logging in the user further comprising means for assigning values to user login attributes, the user login attributes comprising user identification, device type, network address, and a tier;

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means, recorded on the recording medium, for assigning a tier value in dependence upon the device type and the service identification code;

wherein the selections are dependent upon the tier;

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wherein means for transcoding further comprises means for transcoding in dependence upon the tier; and

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wherein means for communicating to at least one of the client devices the output stream further comprises means for communicating the output stream to the network address.

34. The computer program product of claim 15 wherein:

means for registering a user further comprises means for creating a service registration record comprising service registration attributes comprising user id, service id and service subscription level; and

means for assigning a tier value further comprises means for assigning a tier value in dependence upon the service subscription level.

10 35. The computer program product of claim 1 further comprising:

means, recorded on the recording medium, for registering a user for an event, the event identified by an event identification code, the event comprising at least one output stream, at least one source, a start date and a start time;

means, recorded on the recording medium, for logging in the user for the event, logging in the user further comprising assigning values to user login attributes, the user login attributes comprising user identification, device type, network address, and a tier;

means, recorded on the recording medium, for assigning a tier value in dependence upon the device type and the event identification code;

wherein the selections are dependent upon the tier;

wherein means for transcoding further comprises means for transcoding in dependence upon the tier; and

wherein means for communicating to at least one of the client devices the output stream further comprises means for communicating the output stream to the network address.

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36. The computer program product of claim 17 wherein:

means for registering a user further comprises means for creating an event registration record comprising event registration attributes comprising user id, event id, event subscription level, start date, and start time; and

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means for assigning a tier value further comprises means for assigning a tier value in dependence upon the event subscription level.

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